



CRYOINSULATION RESEARCH AND DEVELOPMENT CELL

Purpose:

To be used for the development and qualification of sprayable, pourable, and moldable environmentally friendly structures.

The Cryoinsulation R&D Cell provides MSFC with the capability of exploring and developing new insulation materials that are critical in the success of cryotankage, both current and future. The Cell has two booths, one that houses a six-axis spray robot and provides tight environmental control and one that houses hand-spray, pourable, and moldable equipment. The Cell is supplied with standard materials or uniquely MSFC-formulated materials from the adjacent Foam Formulation Facility.

The robot, in conjunction with a turntable target, stimulates the actual spraying parameters experienced during External Tank production at Michoud Assembly Facility. This allows MSFC to develop new equipment and to conduct problem resolution that is directly attributable to produc-



tion hardware. The smaller spray booth is vital in the development of molded parts, closeouts, repairs, and ablator application that is necessary in the production of the external tank of the Space Shuttle Transportation System.



The Cryoinsulation Research and Development Cell has provided support for the Space Shuttle Transportation System for 20 years. The Cell was also used to successfully insulate development LH2 tanks (bondable insulation) and composite LOX tanks (manually hand-sprayed) for the X-33 Program.

POINT-OF-CONTACT:

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